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PTO/SB/08A (08-03)  
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U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

<b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  (use as many sheets as necessary)				<b>Complete if Known</b>	
				<b>APPLICATION NUMBER</b>	10/789,319
				<b>FILING DATE</b>	02/27/2004
				<b>FIRST NAMED INVENTOR</b>	Xu et al.
				<b>Group Art Unit</b>	1712
				<b>Examiner Name</b>	Zimmer, Marc S.
				<b>Attorney Docket Number</b>	P121-63-03
Sheet	1	of	5		

FOREIGN PATENT DOCUMENTS							
Examiner Initials*	Cite No. <sup>1</sup>	Foreign Patent Document		Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T <sup>6</sup>
		Office	Number <sup>4</sup>				

mz	B1	2002/0177319	A1	Chou	11/28/2002	
	B2	6,518,189	B1	Chou	2/11/2003	
	B3	6,828,244	B2	Chou	12/7/2004	
	B4	6,809,356	B2	Chou	10/26/2004	
	B5	2004/0197843	A1	Chou et al.	10/7/2004	
	B6	2004/0156108	A1	Chou et al.	8/12/2004	
	B7	2004/0137734	A1	Chou et al.	7/15/2004	
	B8	2004/0131718	A1	Chou et al.	7/8/2004	
	B9	2004/0118809	A1	Chou et al.	6/24/2004	
	B10	2004/0046288	A1	Chou	3/11/2004	
	B11	2003/0080472	A1	Chou	5/1/2003	
	B12	2003/0034329	A1	Chou	2/20/2003	
	B13	2002/0042027	A1	Chou et al.	4/11/2002	
	B14	2004/0116548	A1	Willson et al.	6/17/2004	
	B15	5,594,042		Glover et al.	1/14/1997	
	B16	5,629,095		Bujanowski et al.	5/13/1997	
	B17	5,861,467		Bujanowski et al.	1/19/1999	
mz	B18	5,331,020		Brown et al.	7/19/1994	

Examiner Signature	Marc Zimmer	Date Considered	6/2/05
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Substitute for form 1449A/PTO				<b>Complete if Known</b>	
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mg	B19	4,617,238		Crivello et al.	10/14/1986	
	B20	6,580,172	B2	Mancini et al.	6/17/2003	
	B21	10/948,511		Xu et al.	9/23/2004	
	B22	10/967,740		Xu et al.	10/18/2004	
	B23	10/919,062		Xu et al.	8/16/2004	
	B24	4,512,848		Deckman et al.	4/23/1985	
	B25	2001/0044075	A1	Nishimura et al.	11/22/2001	
	B26	6,517,995	B1	Jacobson et al.	2/11/2003	
	B27	2004/0110856	A1	Young et al.	6/10/2004	
	B28	5,028,366		Harakal et al.	7/2/1991	
	B29	5,601,641		Stephens	2/11/1997	
	B30	5,849,209		Kindt-Larsen et al.	12/15/1998	
mg	B31	5,849,222		Jen et al.	12/15/1998	

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ms	B32	WO	02/07199		Chou	1/24/2002		
	B33	WO	2004/114016		Chou et al.	12/29/2004		
	B34	WO	99/05724		Chou et al.	2/4/1999		
	B35	WO	03/010289		Chou et al.	2/6/2003		
	B36	WO	03/079416		Chou	9/25/2003		
ms	B37	WO	03/099536		Chou et al.	12/4/2003		

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Sheet 4 of 5				<b>Attorney Docket Number</b>	P121-63-03

OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>

mf	B38	Chou et al., Nanoimprint Lithography, Journal of Vacuum Science Technolgy B 14(16), pp. 4129-4133, 11/1/1996	
	B39	Colburn et al., Development and Advantages of Step-and-Flash Lithography, Solid State Technology, 7/1/2001	
	B40	Colburn et al., Characterization and Modeling of Volumetric and Mechanical Properties for Step and Flash Imprint Lithography Photopolymers, Journal of Vacuum Science Technology. Vol b. 19(6), 11/1/2001	
	B41	Yu et al., Properties of Fluorinated Amorphous Diamond Like Carbon Films by PECVD, Applied Surface Science 219 (3-4); pp. 228-237, 12/1/2003	
	B42	Compon et al., Electroanalysis at Diamond-Like and Doped-Diamond Electrodes, Electroanalysis 15(17); pp. 1349-1363, 9/1/2003	
	B43	Mansano et al., Protective Carbon Layer for Chemical Corrosion of Stainless Steel, Diamond and Related Materials 12 (3-7); pp. 749-752, 3/1/2003	
	B44	Butter et al., Production and Wetting Properties of Fluorinated Diamond-Like Carbon Coatings, Thin Solid Films, 311(1-2); pp. 107-113, 12/31/1997	
	B45	Hakovirta et al., Heat Resistance of Fluorinated Diamond-Like Carbon Films, Diamond and Related Materials 10(8); pp. 1486-1490, 8/1/2001	
mf	B46	Zhu et al., The Improvement of the Oxidation Resistance of TiAl Alloys by Fluorine Plasma-Based Ion Implantation, Surface and Coatings Technology 158; pp. 502-507, 9/1/2002	

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mj	B47	Yao et al., Structural, Mechanical and Hydrophobic Properties of Fluorine-Doped Diamond-Like Carbon Films Synthesized by Plasma Immersion Ion Implantation and Deposition (PIII-D), Applied Surface Science 230; pp. 172-178, 4/17/2004	
	B48	Bailey et al., Step and Flash Imprint Lithography: Defect Analysis, Journal of Vacuum Science, B 19(6), pp. 2806-2810, 11/1/2001	
	B49	Bailey et al., Step and Flash Imprint Lithography: Template Surface Treatment and Defect Analysis, Journal of Vacuum Science, B 18(6), pp. 3572-3577, 11/1/2000	
mj	B50	Schneider et al., Stripes of Partially Fluorinated Alkyl Chains: Dipolar Langmuir Monolayers	

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mg	C5	Data Sheet for MAK (Methyl n-Amyl Ketone), www.sp-chem.com/fine_e, 1/1/2003	
	C6	Data Sheet for gamma-Glycidioxypropyltrimethoxysilane, www.powerchemical.net/3100.htm, 12/5/2003	
	C7	Silicon or Silica, www.mii.org/Minerals/photosil, 3/31/2005	
	C8	Electronic Devices and Circuits, people.deas.harvard.edu/~jones/es154/lectures/lecture_2/materials/materials.html, 3/31/2005	
	C9	Data Sheet for Cymel 303ULF, www.cytec.com, 12:00:00 AM	
	C10	Data Sheet for Cycat 4040, www.cytec.com, 12:00:00 AM	
	C11	International Chemical Safety Card for p-Toluenesulfonic Acid, www.itcilo.it/english/actrav/telearn/osh/ic/104154.htm, 12/5/2003	
	C12	Data Sheet for p-Toluenesulfonic Acid, NIOSH Manual of Analytical Methods (NMAM), Fourth Edition, 12:00:00 AM	
	C13	Data Sheet for Dow Corning Z-6018, , 12:00:00 AM	
mg	C14	Data Sheet for Methyl Amyl Ketone, www.arb.ca.gov/db/solvents/solvent_pages/Ketones-HTML/methyl_amyl.htm, 3/31/2005	

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**ELECTRONIC INFORMATION DISCLOSURE STATEMENT**

Electronic Version v18

Stylesheet Version v18.0

Title of Invention	COMPOSITION FOR AN ETCHING MASK COMPRISING A SILICON-CONTAINING MATERIAL						
Application Number: 10/789319 *10/789319*							
Confirmation Number: 9202							
First Named Applicant: Frank Xu							
Attorney Docket Number: P121-63-03							
Art Unit: 1712							
Examiner: Marc S. Zimmer							
Search string: ( 5737064 ).pn.							
US Patent Documents							
Note: Applicant is not required to submit a paper copy of cited US Patent Documents							
init	Cite.No.	Patent No.	Date	Patentee	Kind	Class	Subclass
<i>mf</i>	1	5737064	1998-04-07	Inoue et al.			
Signature							
Examiner Name				Date			
<i>Marc Zimmer</i>				<i>6/2/05</i>			





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PTO/SS/35A (03-00)

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	A2	3,783,520		King	01-08-1974	
	A3	3,807,027		Heisler	04-30-1974	
	A4	3,807,029		Troeger	04-30-1974	
	A5	3,811,665		Seelig	05-21-1974	
	A6	4,062,600		Wyse	12-13-1977	
	A7	4,070,116		Frosch et al.	01-24-1978	
	A8	4,098,001		Watson	07-04-1978	
	A9	4,119,688		Hiraoka	10-10-1978	
	A10	4,155,169		Drake et al.	05-22-1979	
	A11	4,201,800		Alcom et al.	05-06-1980	
	A12	4,202,107		Watson	05-13-1980	
	A13	4,267,212		Sakawaki	05-12-1981	
	A14	4,326,805		Feldman et al.	04-27-1982	
	A15	4,337,579		De Fazio	07-06-1982	
	A16	4,355,469		Nevins et al.	10-26-1982	
	A17	4,414,750		De Fazio	11-15-1983	
	A18	4,426,247		Toshiakai et al.	01-17-1984	
	A19	4,440,804		Milgram	04-03-1984	
	A20	4,451,507		Beltz et al.	05-29-1984	
	A21	4,507,331		Hiraoka	03-26-1985	
	A22	4,544,572		Sandvig et al.	10-01-1985	
	A23	4,552,832		Blume et al.	11-12-1985	
	A24	4,552,833		Ito et al.	11-12-1985	
	A25	4,600,309		Fay	07-15-1986	
	A26	4,610,442		Oku et al.	09-09-1986	
	A27	4,657,845		Frechet et al.	04-14-1987	
	A28	4,692,205		Sachdev et al.	09-08-1987	
	A29	4,694,703		Routson	09-22-1987	
	A30	4,707,218		Giammarco et al.	11-17-1987	
	A31	4,724,222		Feldman	02-09-1988	
	A32	4,731,155		Napoli et al.	03-15-1988	
	A33	4,737,425		Lin et al.	04-12-1988	
	A34	4,763,886		Takei	08-16-1988	
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<sup>1</sup>Unique citation designation number. <sup>2</sup>See attached Kinds of U.S. Patent Documents. <sup>3</sup>Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>4</sup>For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup>Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. <sup>6</sup>Applicant is to place a check mark here if English language Translation is attached.

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Substitute for form 1449A/PTO			<b>Complete if Known</b>		
<b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  (use as many sheets as necessary)			<b>Application Number</b>	10/789,319	
			<b>Filing Date</b>	02/27/2004	
			<b>First Named Inventor</b>	Xu et al.	
			<b>Group Art Unit</b>	1712	
			<b>Examiner Name</b>	Zimmer, Marc S.	
<b>Sheet</b>	2	of	25	<b>Attorney Docket Number</b>	P121-63-03

U.S. PATENT DOCUMENTS						
Examiner Initials*	Cite No. <sup>1</sup>	U.S. Patent Document		Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number	Kind Code <sup>2</sup> (if known)			
m3	A35	4,772,878		Kane	09-20-1988	
	A36	4,808,511		Holmes	02-28-1989	
	A37	4,826,943		Ito et al.	05-02-1989	
	A38	4,846,931		Gmitter et al.	07-11-1989	
	A39	4,848,179		Ubhayakar	07-18-1989	
	A40	4,848,911		Uchida et al.	07-18-1989	
	A41	4,857,477		Kanamori	08-15-1989	
	A42	4,883,561		Gmitter et al.	11-28-1989	
	A43	4,887,283		Hosno	12-12-1989	
	A44	4,891,303		Garza et al.	01-02-1990	
	A45	4,908,298		Hefferon et al.	03-13-1990	
	A46	4,909,151		Fukui et al.	03-20-1990	
	A47	4,919,748		Bredbenner et al.	04-24-1990	
	A48	4,921,778		Thackeray et al.	05-01-1990	
	A49	4,929,083		Brunner	05-29-1990	
	A50	4,931,351		McColgin et al.	06-05-1990	
	A51	4,959,252		Bonnebat et al.	09-25-1990	
	A52	4,964,145		Maldonado	10-16-1990	
	A53	4,964,945		Calhoun et al.	10-23-1990	
	A54	4,976,818		Hashimoto et al.	12-11-1990	
	A55	4,980,316		Huebner	12-25-1990	
	A56	4,999,280		Hiraoka	03-12-1991	
	A57	5,053,318		Gulla et al.	10-01-1991	
	A58	5,063,321		Carter	11-05-1991	
	A59	5,071,694		Uekita et al.	12-10-1991	
	A60	5,072,126		Proglar	12-10-1991	
	A61	5,073,230		Maracas et al.	12-17-1991	
	A62	5,074,667		Miyatake	12-24-1991	
A63	5,108,875		Thackeray et al.	04-28-1992		
A64	5,110,514		Soane	05-05-1992		
A65	5,126,006		Cronin et al.	06-30-1992		
A66	5,148,036		Malsugu et al.	09-15-1992		
A67	5,148,037		Suda et al.	09-15-1992		
A68	5,151,754		Ishibashi et al.	09-29-1992		
Examiner Signature	Marc Zimmer				Date Considered	6/2/05

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			Application Number	10/789,319	
			Filing Date	02/27/2004	
			First Named Inventor	Xu et al.	
			Group Art Unit	1712	
			Examiner Name	Zimmer, Marc S.	
Sheet	3	of	25	Attorney Docket Number	P121-63-03

U.S. PATENT DOCUMENTS						
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m3	A69	5,155,749		DiMilia et al.	10-13-1992	
	A70	5,169,494		Hashimoto et al.	12-08-1992	
	A71	5,171,490		Fudim	12-15-1992	
	A72	5,173,393		Sezi et al.	12-22-1992	
	A73	5,179,863		Uchida et al.	01-19-1993	
	A74	5,198,326		Hashimoto et al.	03-30-1993	
	A75	5,204,739		Domenicali	04-20-1993	
	A76	5,206,983		Guckel et al.	05-04-1993	
	A77	5,212,147		Sheats	05-18-1993	
	A78	5,218,193		Miyatake	06-08-1993	
A79	5,234,793		Sebald et al.	08-10-1993		
A80	5,240,550		Boehnke et al.	08-31-1993		
A81	5,240,878		Fitzsimmons et al.	08-31-1993		
A82	5,242,711		DeNatale et al.	09-07-1993		
A83	5,244,818		Jokerst et al.	09-14-1993		
A84	5,259,926		Kuwabara et al.	09-09-1993		
A85	5,270,984		Mine	12-14-1993		
A86	5,277,749		Griffith et al.	01-11-1994		
A87	5,314,772		Kozicki et al.	05-24-1994		
A88	5,318,870		Hartney	06-07-1994		
A89	5,324,683		Fitch et al.	06-28-1994		
A90	5,328,810		Lowrey et al.	07-12-1994		
A91	5,330,881		Sidman et al.	07-19-1994		
A92	5,348,616		Hartman et al.	09-20-1994		
A93	5,355,219		Araki et al.	10-11-1994		
A94	5,357,122		Okubora et al.	10-18-1994		
A95	5,362,606		Hartney et al.	11-08-1994		
A96	5,366,851		Novembre	11-22-1994		
A97	5,374,454		Bickford et al.	12-20-1994		
A98	5,376,810		Hoenk et al.	12-27-1994		
A99	5,380,474		Rye et al.	01-10-1995		
A100	5,392,123		Marcus et al.	02-21-1995		
A101	5,414,514		Smith et al.	05-09-1995		
A102	5,417,802		Obeng	05-23-1995		
Examiner Signature					Date Considered	

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			Filing Date	02/27/2004	
			First Named Inventor	Xu et al.	
			Group Art Unit	1712	
			Examiner Name	Zimmer, Marc S.	
Sheet	4	of	25	Attorney Docket Number	P121-63-03

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mg	A103	5,421,981		Leader et al.	06-06-1995	
	A104	5,422,295		CHOI et al.	06-06-1995	
	A105	5,424,549		Feldman	06-13-1995	
	A106	5,425,848		Halsma et al.	06-20-1995	
	A107	5,425,964		Southwell et al.	06-20-1995	
	A108	5,431,777		Austin	07-11-1995	
	A109	5,439,766		Day et al.	08-08-1995	
	A110	5,452,090		Proglor et al.	09-19-1995	
	A111	5,453,157		Jeng	09-26-1995	
	A112	5,458,520		DeMercurio et al.	10-17-1995	
	A113	5,468,542		Crouch	11-21-1995	
	A114	5,480,047		Tanigawa et al.	01-02-1996	
	A115	5,504,793		Chen	04-02-1996	
	A116	5,507,411		Peckels	04-16-1996	
	A117	5,508,527		Kuroda et al.	04-16-1996	
	A118	5,512,131		Kumar et al.	04-30-1996	
mg	A119	5,515,167		Ledger et al.	05-07-1996	
	A120	5,523,878		Wallace et al.	06-04-1996	
	A121	5,527,662		Hashimoto et al.	06-18-1996	
	A122	5,545,367		Bae et al.	08-13-1996	
	A123	5,563,702		Emery et al.	10-08-1996	
	A124	5,566,584		Briganti	10-22-1996	
	A125	5,633,505		Chung et al.	05-27-1997	
	A126	5,654,238		Cronin et al.	08-05-1997	
	A127	5,669,303		Maracas et al.	09-23-1997	
	A128	5,670,415		Rust	09-23-1997	
	A129	5,700,626		Lee et al.	12-23-1997	
	A130	5,723,176		Keyworth et al.	03-03-1998	
	A131	5,724,145		Kondo et al.	03-03-1998	
	A132	5,725,788		Maracas et al.	03-10-1998	
	A133	5,726,548		Chiba et al.	03-10-1998	
	A134	5,731,981		Simard	03-24-1998	
	A135	5,736,424		Prybyla et al.	04-07-1998	
	A136	5,743,998		Park	04-28-1998	
Examiner Signature	Marc Zimmer				Date Considered	6/2/05

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			Application Number	10/789,319	
			Filing Date	02/27/2004	
			First Named Inventor	Xu et al.	
			Group Art Unit	1712	
			Examiner Name	Zimmer, Marc S.	
Sheet	5	of	25	Attorney Docket Number	P121-63-03

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m3	A137	5,747,102		Smith et al.	05-05-1998	
	A138	5,753,014		Van Rijn	05-19-1998	
	A139	5,760,500		Kondo et al.	06-02-1998	
	A140	5,772,905		Chou	06-30-1998	
	A141	5,776,748		Singhvi et al.	07-07-1998	
	A142	5,779,799		Davis	07-14-1998	
	A143	5,785,918		Hull	07-28-1998	
	A144	5,802,914		Fassler et al.	09-08-1998	
	A145	5,804,474		Sakaki et al.	09-08-1998	
	A146	5,808,742		Everett et al.	09-15-1998	
	A147	5,825,482		Nikooahadetal	10-20-1998	
	A148	5,855,686		Rust	01-05-1999	
	A149	5,876,550		Feygin et al.	03-02-1999	
	A150	5,877,036		Kawai	03-02-1999	
	A151	5,877,861		Ausschnitt et al.	03-02-1999	
	A152	5,884,292		Baker et al.	03-16-1999	
	A153	5,888,650		Calhoun et al.	03-30-1999	
A154	5,895,263		Carter et al.	04-20-1999		
A155	5,900,160		Whitesides et al.	05-04-1999		
A156	5,907,782		Wu	05-25-1999		
A157	5,912,049		Shirley	06-15-1999		
A158	5,926,690		Toprac et al.	07-20-1999		
A159	5,937,758		Maracas et al.	08-17-1999		
A160	5,942,871		Lee	08-24-1999		
A161	5,948,219		Rohner	09-07-1999		
A162	5,948,470		Harrison et al.	09-07-1999		
A163	5,948,570		Komblut et al.	09-07-1999		
A164	5,952,127		Yamanaka	09-14-1999		
A165	5,988,859		Kirk	11-23-1999		
A166	6,033,977		Gutsche et al.	03-07-2000		
A167	6,035,805		Rust	03-14-2000		
A168	6,036,055		Mogadam et al.	03-14-2000		
A169	6,038,280		Rossiger et al.	03-14-2000		
A170	6,039,897		Lochhead et al.	03-21-2000		
Examiner Signature	Marc Zimmer				Date Considered	6/2/05

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				<b>Application Number</b>	10/789,319
<b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>				<b>Filing Date</b>	02/27/2004
				<b>First Named Inventor</b>	Xu et al.
				<b>Group Art Unit</b>	1712
				<b>Examiner Name</b>	Zimmer, Marc S.
(use as many sheets as necessary)				<b>Attorney Docket Number</b>	P121-63-03
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	A172	6,051,345		Huang	04-18-2000	
	A173	6,074,827		Nelson et al.	06-13-2000	
	A174	6,081,334		Brimbergen et al.	06-27-2000	
	A175	6,088,103		Everett et al.	07-11-2000	
	A176	6,091,485		Li et al.	07-18-2000	
	A177	6,096,655		Lee et al.	08-01-2000	
	A178	6,117,708		Wensel	09-12-2000	
	A179	6,125,183		Jiawook et al.	09-26-2000	
	A180	6,128,085		Buermann et al.	10-03-2000	
	A181	6,133,576		Shafer et al.	10-17-2000	
	A182	6,137,562		Masuyuki et al.	10-24-2000	
	A183	6,143,412		Schueller et al.	11-07-2000	
	A184	6,150,231		Muller et al.	11-21-2000	
	A185	6,150,680		Eastman et al.	11-21-2000	
	A186	6,168,845	B1	Fontana, Jr. et al.	01-02-2001	
	A187	6,180,239	B1	Whitesides et al.	01-30-2001	
	A188	6,182,042	B1	Peevers	01-30-2001	
	A189	6,188,150	B1	Spence	02-13-2001	
A190	6,204,922	B1	Chalmers	03-20-2001		
A191	6,218,316	B1	Marsh	04-17-2001		
A192	6,234,379	B1	Donges	05-22-2001		
A193	6,245,213	B1	Olsson et al.	06-12-2001		
A194	6,245,581	B1	Bonser et al.	06-12-2001		
A195	6,274,294	B1	Hines	08-14-2001		
A196	6,309,580	B1	Chou	10-30-2001		
A197	6,316,290	B1	Wensel	11-13-2001		
A198	6,326,627	B1	Putvinski et al.	12-04-2001		
A199	6,329,256	B1	Ibok	12-11-2001		
A200	6,334,960	B1	Willson et al.	01-01-2002		
A201	6,337,262	B1	Pradeep et al.	01-08-2002		
A202	6,355,198	B1	Kim et al.	03-12-2002		
A203	6,361,831	B1	Sato et al.	03-26-2002		
A204	6,383,928	B1	Eissa	05-07-2002		
Examiner Signature	Marc Zimmer				Date Considered	6/4/05

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		Number	Kind Code <sup>2</sup> (if known)			
m3	A205	6,387,783	B1	Furukawa et al.	05-14-2002	
	A206	6,387,787	B1	Mancini et al.	05-14-2002	
	A207	6,388,253	B1	Su	05-14-2002	
	A208	6,391,217	B1	Schaffer et al.	05-21-2002	
	A209	6,391,798	B1	DeFelice et al.	05-21-2002	
	A210	6,407,340	B1	Wikstrom et al.	06-18-2002	
	A211	6,407,340	B1	Wikstrom	06-18-2002	
	A212	6,411,010	B1	Suzuki et al.	06-25-2002	
	A213	6,420,892	B1	Krivy et al.	07-16-2002	
	A214	6,423,207	B1	Heidari et al.	07-23-2002	
	A215	6,437,891	B1	Chandrasekhar et al.	08-20-2002	
	A216	6,447,919	B1	Brown et al.	09-10-2002	
	A217	6,455,411	B1	Jiang et al.	09-24-2002	
	A218	6,467,761	B1	Amatucci et al.	10-22-2002	
	A219	6,482,742	B1	Chou	11-19-2002	
	A220	6,489,068	B1	Kye	12-03-2002	
	A221	6,495,624	B1	Brown, James F.	12-17-2002	
	A222	6,514,672	B2	Young et al.	02-04-2003	
	A223	6,517,977	B2	Resnick et al.	02-11-2003	
	A224	6,518,168	B1	Clem et al.	02-11-2003	
	A225	6,521,324	B1	Debe et al.	02-18-2003	
	A226	6,522,411	B1	Moon et al.	02-18-2003	
	A227	6,534,418	B1	PLAT et al.	03-18-2003	
	A228	6,539,286	B1	Jiang	03-25-2003	
	A229	6,541,356	B2	Seshan	04-01-2003	
	A230	6,541,360	B1	PLAT et al.	04-01-2003	
	A231	6,561,706	B2	Singh et al.	05-13-2003	
	A232	6,565,928	B2	Sakamoto et al.	05-20-2003	
	A233	6,580,505	B1	Bareket	06-17-2003	
	A234	6,588,632	B1	Nicol	07-08-2003	
	A235	6,600,969	B2	Sudolcan et al.	07-29-2003	
	A236	6,632,742	B2	Yang et al.	10-14-2003	
m3	A237	6,633,391	B1	Oluseyi et al.	10-14-2003	
	A238	6,635,581	B2	Wong	10-21-2003	
Examiner Signature	Marc Zimmer				Date Considered	6/2/05

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			Application Number	10/789,319	
			Filing Date	02/27/2004	
			First Named Inventor	Xu et al.	
			Group Art Unit	1712	
			Examiner Name	Zimmer, Marc S.	
Sheet	8	of	25	Attorney Docket Number	P121-63-03

U.S. PATENT DOCUMENTS						
Examiner Initials*	Cite No. <sup>1</sup>	U.S. Patent Document		Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number	Kind Code <sup>2</sup> (if known)			
mjs	A239	6,646,662	B1	Nebashi et al.	11-11-2003	
	A240	6,677,252	B2	Marsh	01-13-2004	
	A241	6,696,157	B1	David et al.	02-24-2004	
	A242	6,696,220	B2	Bailey et al.	02-24-2004	
	A243	6,703,190	B2	Ellan et al.	03-09-2004	
	A244	6,703,256	B1	Bloomstein	05-04-2004	
	A245	6,713,238	B1	Chou et al.	03-30-2004	
	A246	6,716,767	B2	Shih et al.	04-06-2004	
	A247	6,719,915	B2	Willson et al.	04-13-2004	
	A248	6,730,256	B1	Bloomstein et al.	05-04-2004	
	A249	6,753,972	B1	Hirose et al.	10-28-1999	
	A250	6,737,202	B2	Gehoski et al.	05-18-2004	
	A251	6,743,713	B2	Mukherjee-Roy et al.	06-01-2004	
	A252	6,767,983	B1	Fujiyama et al.	07-27-2004	
	A253	6,770,852	B1	Steger	08-03-2004	
	A254	6,776,094	B1	Whitesides et al.	08-17-2004	
	A255	6,777,170	B1	Bloomstein et al.	08-17-2004	
	A256	6,805,054	B1	Meissl et al.	10-19-2004	
	A257	2001/0023829	A1	Olsson et al.	09-27-2001	
	A258	2001/0040145	A1	Willson et al.	11-15-2001	
A259	2002/0069525	A1	Hada et al.	06-13-2002		
A260	2002/0093122	A1	Choi et al.	07-18-2002		
A261	2002/0094496	A1	Choi et al.	07-18-2002		
A262	2002/0098426	A1	Sreenivasan et al.	07-25-2002		
A263	2002/0132482	A1	Chou	09-19-2002		
A264	2002/0150398	A1	Choi et al.	10-17-2002		
A265	2002/0167117	A1	Chou	11-14-2002		
A266	2003/0080471	A1	Chou	05-01-2003		
A267	2003/0081193	A1	White et al.	05-01-2003		
A268	2003/0092261	A1	Kondo et al.	05-15-2003		
A269	2003/0113638	A1	Mancini et al.	06-19-2003		
A270	2003/0129542	A1	Shih et al.	07-10-2003		
A271	2003/0133126	A1	Sarfaty et al.	07-17-2003		
A272	2003/0179354	A1	Araki et al.	09-25-2003		
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			Filing Date	02/27/2004	
			First Named Inventor	Xu et al.	
			Group Art Unit	1712	
			Examiner Name	Zimmer, Marc S.	
Sheet	9	of	25	Attorney Docket Number	P121-63-03

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		Number	Kind Code <sup>2</sup> (if known)			
ms	A273	2003/0205657	A1	Voisin	11-06-2003	
	A274	2003/0205658	A1	Voisin	11-06-2003	
	A275	2003/0215577	A1	Willson et al.	11-20-2003	
	A276	2003/0235787	A1	Watts et al.	12-25-2003	
	A277	2004/0007799	A1	Choi et al.	01-15-2004	
	A278	2004/0008334	A1	Sreenivasan et al.	01-15-2004	
	A279	2004/0009673	A1	Sreenivasan et al.	01-15-2004	
	A280	2004/0010341	A1	Watts et al.	01-15-2004	
	A281	2004/0021254	A1	Sreenivasan et al.	02-05-2004	
	A282	2004/0021866	A1	Watts et al.	02-05-2004	
	A283	2004/0022888	A1	Sreenivasan et al.	02-05-2004	
	A284	2004/0029041	A1	Shih et al.	02-12-2004	
	A285	2004/0036201	A1	Chou et al.	02-26-2004	
	A286	2004/0038552	A1	Watts et al.	02-26-2004	
	A287	2004/0046271	A1	Watts	03-11-2004	
	A288	2004/0053146	A1	Sreenivasan et al.	03-18-2004	
	A289	2004/0065252	A1	Sreenivasan et al.	04-08-2004	
	A290	2004/0065976	A1	Sreenivasan et al.	04-08-2004	
	A291	2004/0086793	A1	Sreenivasan et al.	05-06-2004	
	A292	2004/0089979	A1	Rubin	05-13-2004	
	A293	2004/0090611	A1	Choi et al.	05-13-2004	
	A294	2004/0104641	A1	Choi et al.	06-03-2004	
	A295	2004/0112153	A1	Choi et al.	06-14-2004	
	A296	2004/0112861	A1	Choi et al.	06-17-2004	
	A297	2004/0112862	A1	Willson et al.	06-14-2004	
	A298	2004/0116548	A1	Willson	06-17-2004	
	A299	2004/0122862	A1	Willson et al.	06-17-2004	
	A300	2004/0124566	A1	Sreenivasan et al.	07-01-2004	
	A301	2004/0141163	A1	Bailey et al.	07-22-2004	
	A302	2004/0141168	A1	Sreenivasan et al.	07-22-2004	
	A303	2004/0146792	A1	Nimmakayala et al.	07-29-2004	
	A304	2004/0149687	A1	Choi et al.	08-05-2004	
ms	A305	2004/0150129	A1	Hougham et al.	08-05-2004	
	A306	2004/0163563	A1	Sreenivasan et al.	08-26-2004	
Examiner Signature	Marc Zimmer				Date Considered	8/4/05

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				Application Number	10/789,319
				Filing Date	02/27/2004
				First Named Inventor	Xu et al.
				Group Art Unit	1712
				Examiner Name	Zimmer, Marc S.
				Attorney Docket Number	P121-63-03
				Sheet	10

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<b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  (use as many sheets as necessary)		Application Number	10/789,319
		Filing Date	02/27/2004
		First Named Inventor	Xu et al.
		Group Art Unit	1712
		Examiner Name	Zimmer, Marc S.
		Attorney Docket Number	P121-63-03
Sheet	11	of	25

FOREIGN PATENT DOCUMENTS								
Examiner Initials*	Cite No. <sup>1</sup>	Foreign Patent Document			Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T <sup>6</sup>
		Office <sup>2</sup>	Number <sup>3</sup>	Kind Code <sup>4</sup> (if known)				
mz	A322	DE	19648844		Muller et al.	09-18-1997		
	A323	DE	2800476		Lamprecht et al.	07-13-1978		
	A324	EP	0867775		Shinji	09-30-1998		
	A325	EP	244884		Ponjee	03-03-1987		
	A326	EP	733455		Anderhub et al.	09-25-1996		
	A327	JP	02192045		Mineo et al.	07-27-1990		
	A328	JP	02-24848		Kamio	01-26-1990		
	A329	JP	02-92603		Kurikawa	04-03-1990		
	A330	JP	1-196749		Matsumoto et al.	08-08-1989		
	A331	JP	4-70379		Unknown	05-01-1992		
	A332	JP	55-88332		Masahiro	07-04-1980		
	A333	JP	57-7931		Hirakawa et al.	01-16-1982		
	A334	JP	58-129074		Takeda	08-01-1983		
	A335	JP	63-138730		Koji	06-10-1988		
	A336	WO	00/21689		Chou et al.	04-20-2000		
	A337	WO	00/54107		Willson et al.	09-14-2000		
	A338	WO	01/33232		Andeen et al.	05-10-2001		
	A339	WO	01/33300		Choi	05-10-2001		
	A340	WO	01/47003	A2	Steiner et al.	06-28-2001		
	A341	WO	01/53889		Ling et al.	07-26-2001		
	A342	WO	01/63361		Heldari et al.	08-30-2001		
	A343	WO	01/69317		Montelius et al.	09-20-2001		
	A344	WO	01/79589		Hallberg	10-25-2001		
	A345	WO	01/79591		Hallberg et al.	10-25-2001		
	A346	WO	01/79592		Hallberg et al.	10-25-2001		
	A347	WO	01/79933		Heidari	10-25-2001		
	A348	WO	01/90816		Heidari	11-29-2001		
	A349	WO	02/006902		Choi et al.	01-24-2002		
	A350	WO	02/008835		Choi et al.	01-31-2002		
	A351	WO	02/067055		Choi et al.	08-29-2002		
	A352	WO	02/17383		Choi et al.	02-28-2002		
	A353	WO	02/22916		Pettersson et al.	03-21-2002		
	A354	WO	02/24977		Bjarnason et al.	03-28-2002		
	A355	WO	2004/006120		Watts et al.	01-15-2004		
	A356	WO	2004/016406		Sreenivasan et al.	02-26-2004		

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<b>Application Number</b>	10/789,319
<b>Filing Date</b>	02/27/2004
<b>First Named Inventor</b>	Xu et al.
<b>Group Art Unit</b>	1712
<b>Examiner Name</b>	Zimmer, Marc S.
<b>Attorney Docket Number</b>	P121-63-03

Sheet	12	of	25
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		Filing Date	02/27/2004		
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Sheet	13	of	25	Attorney Docket Number	P121-63-03

OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS			
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mz	A367	Abstract of Japanese Patent 02-24848, January 26, 1990	
	A368	Abstract of Japanese Patent 02-92603, August 12, 2004	
	A369	Abstract of Japanese Patent 55-88332, April 14, 2004	
	A370	Abstract of Japanese Patent 57-7931, April 14, 2004	
	A371	Abstract of Japanese Patent 58-129074, August 01, 1983	
	A372	Abstract of Japanese Patent 63-138730, April 14, 2004	
	A373	ANANTHASURESH et al., "Strategies for Systematic Synthesis of Compliant Mems.", DSC-Vol. 55-2, Dynamic Systems and Control: Volume 2, pp. 677 - 686, November 1, 1994.	
	A374	ARAI et al., "Calibration and Basic Motion of Micro Hand Module.", IEEE, January 1, 1993, pp. 1660-1665.	
	A375	Arai et al., "Development of a New Parallel Manipulator with Fixed Linear Actuator.", In Proceedings of Japan/USA Symposium on Flexible Automation, January 1, 1996, Vol. 1, ASME, New York, pp. 145-149.	
	A376	ARMITAGE, "Analysis of Overlay Distortion Patterns.", Journal of Vacuum Science. B 20(6) pp. 2891-2895, November 1, 2002	
mz	A377	BENDER et al., "Fabrication of Nanostructures using a UV-based Imprint Technique.", Microelectronic Engineering 53, January 1, 2000, pp. 233-236.	

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			Application Number	10/789,319	
			Filing Date	02/27/2004	
			First Named Inventor	Xu et al.	
			Group Art Unit	1712	
			Examiner Name	Zimmer, Marc S.	
Sheet	14	of	25	Attorney Docket Number	P121-63-03

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mz	A378	BENDER et al., "Multiple Imprinting in UV-based Nanoimprint Lithography: Related Material Issues.", Microelectronic Engineering 61 - 62, January 1, 2002, pp. 407-413.	
	A379	BLOMQUIST et al., "Fluorinated Acrylates in making Low-Loss, Low-Birefringence, and Single-Mode Optical Waveguides with Exceptional Thermo-Optic Properties.", SPIE Conference on Linear Optical Properties of Waveguides and Fibers, July 1, 1999, Vol. 3799, pp. 266-279.	
	A380	BRAEUER et al., "Precise Polymer Micro-Optical Systems.", MRS Bulletin, July 1, 2001, pp. 519-522.	
	A381	CHEN et al., "Adaptive Alignment of Photomasks for Overlay Placement.", Journal of Vacuum Science. B20(6) pp. 3099-3105, November 1, 2002.	
	A382	CHOI et al., "Design of Orientation Stages for Step and Flash Imprint Lithography.", Precision Engineering, January 1, 2001, pp. 192-199.	
	A383	CHOU et al., "Imprint Lithography with 25-Nanometer Resolution." Science Vol. 272, April 5, 1996, pp. 85-87.	
	A384	CHOU et al., "Imprint Lithography with Sub-10 nm Feature Size and High Throughput.", Microelectronic Engineering 35, January 1, 1997, pp. 237-240.	
	A385	CHOU et al., "Imprint of Sub-25 nm Vias and Trenches in Polymers.", Applied Physics Letter, November 20, 1995, 67 (21)	
	A386	CHOU et al., "Lithographically Induced Self-assembly of Periodic Polymer Micropillar Arrays.", J. Vac. Sci. Technol., November 1, 1999, B 17(6), pp. 3197-3202.	
	A387	CHOU et al., "Nanoimprint Lithography and Lithographically Induced Self-Assembly.", MRS Bulletin, July 1, 2001, pp. 512-517.	
mz	A388	CHOU, "Ultrafast and Direct Imprint of Nanostructures in Silicon, Nature, Vol. 417, (June 2002), pp. 835-837.	

Examiner Signature	Marc Zimmer	Date Considered	6/1/05
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mz	A389	CIBA SPECIALTY CHEMICALS, "What is UV Curing?", www.cibasc.com/image.asp?id=4040	
	A390	COLBURN et al., "Step and Flash Imprint Lithography for sub-100 nm Patterning.", Proceedings of SPIE, January 1, 2000, Vol. 3997, pp. 453 - 457.	
	A391	COLBURN et al., "Step and Flash Imprint Lithography: A New Approach to High-Resolution Patterning.", Proc of SPIE, Vol. 3676.	
	A392	COWIE, "Polymers: Chemistry and Physics of Modern Materials.", 2 <sup>nd</sup> Ed., January 1, 1991, pp. 408-409	
	A393	ELDADA et al., "Advanced Polymer Systems for Optoelectronic Integrated Circuit Applications.", SPIE, January 1, 1997, Vol. 3006, pp. 344 - 361.	
	A394	ELDADA et al., "Affordable WDM Components: The Polymer Solution.", SPIE, January 1, 19998, Vol. 3234, pp. 161-174.	
	A395	ELDADA et al., "Robust Photopolymers for MCM, Board, and Backplane Optical Interconnects.", SPIE, January 1, 1998, Vol. 3288, pp. 175 - 191.	
	A396	FELDMAN et al., "Wafer Chuck Magnification Correction in X-Ray Lithography.", J. Vac. Sci. Technol. B 16(6), November 1, 1998, pp. 3476 - 3479.	
	A397	FEYNMAN, "There's Plenty of Room at the Bottom.", International Appl. No. PCT/US2002/015551	
	A398	GOKAN et al., "Dry Etch Resistance of Organic Materials.", J. Electrochem. Soc.: SOLID-STATE SCIENCE AND TECHNOLOGY, January 1, 1983, pp. 143-146.	
mz	A399	GOLDFARB et al., "A Well-Behaved Revolute Flexure Joint for Compliant Mechanism Design.", ASME Journal of Mechanical Design, 09-01-1999, Vol. 121, No. 3, pp. 424-429	

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mj	A400	GOLDFARB et al., "Compliant Micromanipulator Design for Scaled Bilateral Telemanipulation of Small-Scale Environments.", ASME International Mechanical Engineering Conference and Exposition, November 1, 1998, DSC-Vol. 64, pp. 213-218.	
	A401	HAISMA et al., "Mold-assisted Nanolithography: A Process for Reliable Pattern Replication.", J. Vac. Sci. Technol. B, November 1, 1996, pp. 4124-4128.	
	A402	HASHIMOTO et al., "Design and Characteristics of a Parallel Link Compliant Wrist." IEEE, May 1, 1994, Department of Mechanical Engineering, Kagoshima University, pp. 2457-2462.	
	A403	HEIDARI, "Nanoimprint Lithography at the 6 in. Wafer Scale.", J. Vac. Sci. Technol. B 18 (6), November 1, 2000, pp. 3557 - 3560.	
	A404	HEXAPODS, "G1000-PS Power Series", www.hexapods.com.	
	A405	HEXEL CORPORATION, "Tomado 2000 System Specifications.", www.hexel.com, November 12, 1999.	
	A406	HIRAI et al., "Abstract of Mold Surface Treatment for Imprint Lithography", Journal of Photopolymer Science and Technology, August 28, 2001, pp 457-462, vol 14, No. 3	
	A407	HIRAI et al., "Mold Surface Treatment for Imprint Lithography.", Journal of Photopolymer Science and Technology, August 1, 2001, Vol. 14, No. 3, pp. 457-462.	
	A408	HIROSHIMA et al., "Step-and-Repeat Photo-Nanoimprint System Using Active Orientation Head.", Japanese Journal of Applied Physics, June 29, 2004, Vol. 43, No. 6B, pp. 4012-4016.	
	A409	HOGAN et al., "Impedance Control: An Approach to Manipulation: Part 1- Theory.", Journal of Dynamic Systems, Measurement, and Control, March 1, 1985, Vol. 107, pp. 1-7.	
mj	A410	HOLLIS et al., "A Six-Degree-of-Freedom Magnetically Levitated Variable Compliance Fine-Motion Wrist: Design, Modeling, and Control.", IEEE Transactions on Robotics and Automation, June 1, 1991, Vol 7., No. 3, pp. 320 - 332.	

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mg	A411	HOWELL et al., "A Loop-Closure Theory for the Analysis and Synthesis of Compliant Mechanisms.", Journal of Mechanical Design, March 1, 1996, Vol. 188, pp. 121-125.	
	A412	HU et al., "Fluorescence Probe Techniques (FPT) for Measuring the Relative Efficiencies of Free-Radical Photoinitiators.", Macromolecules, May 29, 1998, 31, pp. 4107-4113.	
	A413	International Application No. PCT/US2002/015551, "Communication Relating to the Results of the Partial International Search."	
	A414	International Search Report for PCT/US 00/30041, October 18, 2001.	
	A415	International Search Report for PCT/US 01/26049, February 19, 2002	
	A416	JOHNSON et al., "Advances in Step and Flash Imprint Lithography.", SPIE Microlithography Conference, February 23, 2003.	
	A417	KANETOMO et al., "Robot for Use in Ultrahigh Vacuum.", Solid State Technology, August 1, 1997, pp. 63-72.	
	A418	KAWATA et al., "Imprint/Photo Hybrid Lithography Using Conventional Contact Aligner.", Japanese Journal of Applied Physics, June 29, 2004, Vol. 43, No. 6B, pp. 4027-4030.	
	A419	KIM et al., "High-precision Magnetic Levitation Stage for Photolithography.", Precision Engineering, April 1, 1998, Vol 22., No. 2, pp. 66 - 77.	
	A420	KIM et al., "Reducing Photocurable Polymer Pattern Shrinkage and Roughness during Dry Etching in Photo-Nanoimprint Lithography.", Japanese Journal of Applied Physics, June 29, 2004, Vol. 43, No. 6B, pp. 4022-4026.	
mg	A421	KIM et al., "Surface Energy and Polarity of Treated Indium-Tin-Oxide Anodes for Polymer Light-Emitting Diodes Studied by Contact Angle Measurements.", Journal of Applied Physics, 1999, pp. 2774-2778, Vol. 86, No. 5.	

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mj	A422	KOSEKI, "Design and Accuracy Evaluation of High-Speed and High Precision Parallel Mechanism.", Proc. Of IEEE, January 1, 1998, Intl. Conf. on Robotics & Automation, pp. 1340-1345.	
	A423	KOTACHI et al., "Si-Containing Positive Resist for ArF Excimer Laser Lithography.", Photopolymer Science and Technology, November 4, 1995, pp. 615 - 622.	
	A424	KRAUSS et al., "Fabrication of Nanodevices Using Sub-25 nm Imprint Lithography.", Appl. Phys. Lett., January 1, 1995, 67 (21), pp. 3114-3116.	
	A425	KRUG et al., "Fine Patterning of Thin Sol-gel Films.", Journal of Non-Crystalline Solids, January 1, 1992, 147 & 148, pp. 447-450.	
	A426	KUMAR et al., "Features of Gold Having Micrometer to Centimeter Dimensions can be Formed Through a Combination of Stamping with an Elastomeric Stamp and an Alkanethiol "ink" followed by Chemical Etching.", Applied Physics Letters, October 4, 1993, Vol. 63, Issue 14, pp. 2002-2004.	
	A427	LEE et al., "An Ultraprecision Stage for Alignment of Wafers in Advanced Microlithography.", Precision Engineering, September 1, 1997, pp. 113-122.	
	A428	LEE et al., "Ultra Precision Positioning System for Servo Motor-piezo Actuator Using the Dual Servo Loop and Digital filter Implementation.", American Society for Precision Engineering, January 1, 1998, pp. 287-290.	
	A429	LIN, "Multi-Layer Resist Systems.", Introduction to Microlithography, February 14, 1983, pp. 287-349.	
	A430	LUCAS AEROSPACE, Free-Flex @ Pivot Catalog, January 1, 1999	
	A431	LUURTSEMA, "Spin Coating for Rectangular Substrates.", Retrieved 5/23/02 from URL: <a href="http://buffy.eecs.berkeley.edu/RO/Summary/97abstracts/gluurts.2.html">http://buffy.eecs.berkeley.edu/RO/Summary/97abstracts/gluurts.2.html</a> , May 23, 1992.	
mj	A432	MANISKY et al., "Large-Area Domain Alignment in Block Copolymer Thin Films Using Electric Fields.", Macromolecules, June 9, 1998, Vol. 31, No. 13, pp. 4399-4401.	

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mg	A433	MARTIN et al., "Predication of Fabrication Distortions in Step and Flash Imprint Lithography Templates.", Journal of Vacuum Science. B 20(6) pp. 2891-2895, November 1, 2002.	
	A434	MERLET, "Parallel Manipulators: State of the Art and Perspectives.", Advanced Robotics, January 1, 1994, Vol. 8, pp. 589-596.	
	A435	MIRKIN et al., "Emerging Methods for Micro-and-Nanofabrication.", MRS Bulletin, July 1, 2001, pp. 506-509.	
	A436	MITSUMI et al., "Application of Two-Wavelength Optical Heterodyne Alignment System in XS-1.", Part of the SPIE Conference on Emerging Lithographic Technologies III, March 1, 1999, SPIE Vol. 3676, pp. 455-464.	
	A437	MITTAL, "Precision Motion Control of a Magnetic Suspension Actuator Using a Robust Nonlinear Compensation Scheme.", IEEE/ASME Transactions on Mechatronics., December 1, 1997, Vol. 2., No. 4, pp. 268-280.	
	A438	MOON et al., "Interferometric-Spatial-Phase Imaging for Six-Axis Mask Control, October 17, 2003, MIT Nanostructures Laboratory, Research Laboratory of Electronics.	
	A439	NAKAMATSU et al., "Bilayer Resist Method for Room-Temperature Nanoimprint Lithography.", Japanese Journal of Applied Physics, June 29, 2004, Vol. 43, No. 6B, pp. 4050-4053.	
	A440	NERAC.COM Retro Search, "Imprint Lithography," October 16, 2004.	
	A441	NERAC.COM Retro Search, "Multi-Layer Resists.", September 2, 2004.	
	A442	NERAC.COM Retro Search, "Reduction of Dimension of Contact Holes.", August 31, 2004.	
mg	A443	NERAC.COM Retro Search, "Trim Etching of Features Formed on an Organic Layer.", September 2, 2004.	

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mg	A444	NGUYEN, "Asymmetric Fluid-Structure Dynamics in Nanoscale Imprint Lithography." The University of Texas at Austin, August 1, 2001, pp. 1-111.	
	A445	Office Action from U.S. Pub. 2003-0133126 - A1.	
	A446	OHYA et al., "Development of 3-DOF Finger Module for Micro Manipulation.", Proc. of IEEE, March 1, 1999, Intl. Conf. on Intelligent Robots and Systems, pp. 894-899.	
	A447	OTTO et al., "Characterization and Application of a UV-based Imprint Technique.", Microelectronic Engineering 57 - 58, January 1, 2001, pp. 361-366.	
	A448	OTTO et al., "Reproducibility and Homogeneity in Step and Repeat UV-Nanoimprint Lithography.", Microelectronic Engineering 73-74, January 1, 2004, pp. 152-156.	
	A449	OTTO et al., "Step and Repeat UV-Nanoimprint Lithography: Material Issues.", NNT02 San Francisco, December 11, 2002.	
	A450	PAPIRER et al., "Abstract of The Grafting of Perfluorinated Silanes onto the Surface of Silica: Characterization by Inverse Gas Chromatography.", Journal of Colloid and Interface Science 159, August 1, 1993, pp. 238-242.	
	A451	PAPIRER et al., "The Grafting of Perfluorinated Silanes onto the Surface of Silica: Characterization by Inverse Gas Chromatography.", Journal of Colloid and Interface Science 159, 08-01-03, pp. 238-242.	
	A452	PARIKH et al., "An Intrinsic Relationship between Molecular Structure in Self-Assembled n-Alkylsiloxane Monolayers and Deposition Temperature.", Journal of Phys. Chem., July 1, 1994, pp. 7577-7590.	
	A453	PAROS et al., "How to design Flexure Hinges.", Machine Design, November 25, 1965, pp 151-156.	
mg	A454	PENG et al., "Compliant Motion Control of Kinetically Redundant Manipulators.", IEEE Transactions on Robotics and Automation, December 1, 1993, Vol. 9, No. 6, pp.831-837.	

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m3	A455	PERNETTE et al., "Design of Parallel Robots in Microbotics.", Robotica, January 1, 1997, Vol. 15, pp 417-420.	
	A456	PHYSIK INSTRUMENTS, "Hexapod Six-Axis Parallel Kinematics Robot", Nano Positioning, January 1, 1998, pp. 8.4 - 8.5.	
	A457	PHYSIK INSTRUMENTS, "NanoPositioning, MicroPositioning, Piezo Technology.", PI Online Catalog, January 1, 1999, www.physikinstrument.com.	
	A458	PHYSIK INSTRUMENTS, "Product Catalog for Micropositioning", 1997	
	A459	"Photoresist Coating Methods.", E-mail from Susan Bagen (BAGEN@aol.com) to Dhaval Shah, September 18, 1997.	
	A460	RAIBERT et al., "Hybrid Position/Force Control of Manipulators.", Journal of Dynamic Systems, Measurement, and Control, June 1, 1981, Vol. 102, pp. 126 - 133.	
	A461	RONG et al., "Design and Analysis of Flexure-Hinge Mechanism Used in Micro-Positioning Stages.", ASME, January 1, 1994, Vol. 2, pp. 979-985.	
	A462	RONG et al., "Dynamics of Parallel Mechanism with Direct Compliance Control.", IEEE, January 1, 1997, pp. 1753-1758.	
	A463	ROOS et al., "Abstract of Nanoimprint Lithography with a Commercial 4 Inch Bond System for Hot Embossing", Proceedings of SPIE, October 1, 2001, Vol. 4343, pp. 427-435	
	A464	ROOS et al., "Nanoimprint Lithography with a Commercial 4 Inch Bond System for Hot Embossing.", Proceedings of SPIE, October 1, 2001, Vol. 4343, pp. 427-435.	
m3	A465	RUCHHOEFT et al., "Patterning Curved Surfaces: Template Generation by Ion Beam Proximity Lithography and Relief Transfer by Step and Flash Imprint Lithography.", Journal of Vacuum Science and Technology, pp. 1-17.	

Examiner Signature	<i>Marc Zimmer</i>	Date Considered	6/2/05
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<b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  (use as many sheets as necessary)		Application Number	10/789,319
		Filing Date	02/27/2004
		First Named Inventor	Xu et al.
		Group Art Unit	1712
		Examiner Name	Zimmer, Marc S.
Sheet 22 of 25	Attorney Docket Number	P121-63-03	

OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No.	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
mz	A466	SAGIV, "Organized Monolayers by Absorption. 1. Formation and Structure of Oleophobic Mixed Monolayers on Solid Surfaces.", Journal of American Chemical Society/102:1, January 2, 1980.	
	A467	SCHEER et al., "Problems of the Nanoimprinting Technique for Nanometer Scale Pattern Definition.", J. Vac. Sci. Techno. B., November 1, 1998, pp. 3917-3921.	
	A468	SCHNEIDER et al., "The Wave-Printer: Towards Large-Area, Multilayer Microcontact Printing.", Proc. of 4 <sup>th</sup> Euspen International Conference, Glasgow, Scotland (UK), May 1, 2004.	
	A469	SLOCUM, "Precision Machine Design: Macromachine Design Philosophy and Its Applicability to the Design of Micromachines.", Micro Electro Mechanical Systems, February 4, 1992.	
	A470	SOWAH, "Diamond Used to Break the Mould [online].", [Retrieved on Sept. 2, 2003.] Retried from the Internet: <URL: http: HTTP://eetuk.com/showArticle.jhtml?articleID=19203691>., 9-02-03.	
	A471	SREENIVASAN et al., "IDF Spin Cast Imprinting.", October 21, 2004, Powerpoint Presentation.	
	A472	SRINIVASAN et al., "Alkyltrichlorosilane-Based Self-Assembled Monolayer Films for Stiction Reduction in Silicon Micromachines.", Journal of Microelectromechanical Systems, June 1, 1998, Vol. 7, No. 2, p. 252-260.	
	A473	STEWART, "A Platform With Six Degrees of Freedom.", Proc Instn Mech Engrs, May 28, 1965, Vol 180, Pt1, No. 15, pp. 371-378.	
	A474	STIX, "Getting More from Moores", Scientific American	
	A475	SUNG et al., "Abstract of Micro/nano-tribological Characteristics of Self-Assembled Monolayer and its Application in Nano-Structure Fabrication", Elsevier Science B.V., July 1, 2003, Vol. 255, no. 7	
mz	A476	SUNG et al., "Micro/nano-tribological Characteristics of Self-Assembled Monolayer and its Application in Nano-Structure Fabrication.", Elsevier Science B.V., July 1, 2003, Vol. 255, No. 7, pp. 808-818.	

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m	A477	TAJBAKHSI et al., "Three-Degree-of-Freedom Optic Mount for Extreme Ultraviolet.", American Society for Precision Engineering, January 1, 1998, pp. 359-362.	
	A478	TANIKAWA et al., "Development of Small-sized 3 DOF Finger Module in Micro Hand for Micro Manipulation.", Proc. of IEEE, March 1, 1999, Intl. conf. on Intelligent Robots and Systems, pp. 876-881.	
	A479	TOMITA et al., "A 6-axes Motion Control Method for Parallel-Linkage-Type Fine Motion Stage.", JSPE-58-04, pp. 118-124.	
	A480	Translation of Japanese Patent 02-24848, January 26, 1990.	
	A481	Translation of Japanese Patent 02-92603, April 3, 1990.	
	A482	TRILOGY SYSTEMS, "Linear Motors 310.", www.trilogysystems.com, January 1, 2001.	
	A483	UCHIDA et al., "A Mask-to-Wafer Alignment and Gap Setting Method for X-ray Lithography Using Graftings.", Journal Vacuum Science Technology, November 1, 1991, B 9 (6), pp. 3202-3206.	
	A484	US Application No. 09/698,317, Filed 10-27-2000, CHOI et al., "High Precision Orientation Alignment and Gap Control Stages for Imprint Lithography Processes."	
	A485	US Application No. 10/463,396, Filed 06-17-2003, CHOI et al., "Method to Reduce Adhesion Between a Conformable Region and a Pattern of a Mold."	
	A486	US Application No. 10/614,716, Filed 07-07-2003, SREENIVASAN et al., "A Conforming Template for Patterning Liquids Disposed on Substrates."	
m	A487	US Application No. 10/666,527, Filed 09-18-03, BAILEY et al., "Imprint Lithography Templates having Alignment Marks."	

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Sheet	24	of	25
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mz	A488	US Application No. 10/677,639, Filed 10-02-03, MCMACKIN et al., "Single Phase Fluid Imprint Lithography Method."	
	A489	US Application No. 10/687,519, Filed 10-16-2003, TRUSKETT et al., "Low Surface Energy Templates."	
	A490	US Application No. 10/687,562, Filed 10-16-03, CHERALA et al., "Applying Imprinting Material to Substrates Employing Electromagnetic Fields."	
	A491	US Application No. 10/694,284, Filed 10-27-03, XU, "Methods for Fabricating Patterned Features Utilizing Imprint Lithography."	
	A492	US Application No. 10/760,821, Filed 01-20-2004, SREENIVASAN et al., "Method for Concurrently Employing Differing Materials to Form a Substrate."	
	A493	US Application No. 10/784,911, Filed 02-23-04, XU, "Materials for Imprint Lithography."	
	A494	US Application No. 10/785,248, Filed 02-24-2004, CHOI et al., "A Method to Control the Relative Position Between a Body and a Surface."	
	A495	US Application No. 10/788,700, Filed 02-27-2004, SREENIVASAN et al., "Full-Wafer or Large Area Imprinting with Multiple Separated Sub-Fields for High Throughput Lithography."	
	A496	US Application No. 10/864,214, Filed 6-9-04, SREENIVASAN et al., "An Imprint Lithography System to Produce a Light to Impinge upon and Polymerize a Liquid in Superimposition with Template Overlay Marks."	
	A497	US Application No. 10/898,034 Filed 07-23-04, MCMACKIN et al., "A Method of Creating a Turbulent Flow of Fluid between a Mold and a Substrate."	
mz	A498	US Application No. 10/898/037, Filed 07-23-04, MCMACKIN et al., "A System of Creating a Turbulent Flow of Fluid between a Mold and a Substrate."	

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m3	A499	US Application No. 60/394,458, Filed 07-08-2002, SREENIVASAN et al., "Method and Apparatus for Whole Wafer Planarization using Optical Flats and Light Curable Liquids."		
	A500	US Applications No. 10/616,294, Filed 07-09-2003, CHOI et al., "Systems for Magnification and Distortion Correction for Imprint Lithography Processes."		
	A501	VANDERBILT, "VU9730 Specifications for Improved Flexure Device.", Vanderbilt University Office of Transfer Technology, 101, 25, 192-199.		
	A502	WANG et al., "Passive Compliance versus Active Compliance in Robot-Based Automated Assembly Systems.", Industrial Robot, January 1, 1998, Vol. 25, No. 1, pp. 48-57.		
	A503	WHITE et al., "Novel Alignment System for Imprint Lithography.", J. Vac. Sci. Technol. B 18(6), November 1, 2000, pp. 3552-3556.		
	A504	WILLIAMS et al., "Six Degree of Freedom Mag-Lev Stage Development.", SPIE, January 1, 1997, Vol. 3051, pp. 856-867.		
	A505	WU, "Large Area High Density Quantized Magnetic Disks Fabricated Using Nanoimprint Lithography.", J. Vac. Sci. Technol., November 1, 1998, B 16(6), pp. 3825-3829.		
	A506	XIA et al., "Soft Lithography.", Angew. Chem. Int. Ed., January 1, 1998, pp. 551-575.		
m3	A507	XIA et al., "Soft Lithography.", Annu Rev. Mater. Sci., 1998, 28: 153-184.		

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## Title of Invention

COMPOSITION FOR AN ETCHING MASK COMPRISING A  
SILICON-CONTAINING MATERIAL

Application Number : 10/789319



Confirmation Number: 9202

First Named Applicant: Frank Xu

Attorney Docket Number: P121-63-03

Art Unit: 1712

Examiner: Marc S. Zimmer

Search string: ( 6468642 or 5542978 or 5837314 or 6565776 or 6503914 or 6649272 or 6204343  
or 4614667 or 3810874 or 6737489 or 6721529 or 6664306 or 6790905 or 6544594  
or 6774183 or 6830819 or 6802870 or 5389696 ).pn

## US Patent Documents

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init	Cite.No.	Patent No.	Date	Patentee	Kind	Class	Subclass
ms	1	6468642	2002-10-22	Bray et al.	B1		
	2	5542978	1996-08-06	Kindt-Larsen et al.			
	3	5837314	1998-11-17	Beaton et al.			
	4	6565776	2003-05-20	Li et al.	B1		
	5	6503914	2003-01-07	Benish et al.	B1		
	6	6649272	2003-11-18	Moore et al.	B2		
	7	6204343	2001-03-20	Barucha et al.	B1		
	8	4614667	1986-09-30	Larson et al.			
	9	3810874	1974-05-14	Mitsch et al.			
	10	6737489	2004-05-18	Linert et al.	B2		
	11	6721529	2004-04-13	Chen et al.	B2		
	12	6664306	2003-12-16	Gaddam et al.	B2		
	13	6790905	2004-09-14	Fitzgerald et al.	B2		
	14	6544594	2003-04-08	Linford et al.	B2		
	15	6774183	2004-08-10	Palumbo et al.	B1		
	16	6830819	2004-12-14	Kaplan et al.	B2		
	17	6802870	2004-10-12	Chang et al.	B2		
ms	18	5389696	1995-02-14	Dempsey et al.			

Signature

*Marc Zimmer*

6/13/05